

The invention relates to chemistry and biotechnology, in particular to the synthesis of a new coordinative compound of iron(III) with antioxidant properties that can be used in the food industry and in medicine, and to a process for cultivation of microalga *Porphyridium cruentum* with its use.

According to the invention, a coordinative compound – bis[1-phenyl-3-methyl-6-(pyridinium-4-yl)-4,5-diaza-hexa-1,3-diene-1,6-diolato(-2)- $O^1, N^4, O^6$ ]iron(III) nitrate is claimed.

Also claimed is a process for cultivation of microalga *Porphyridium cruentum*, which consists in that microalga is cultivated on a nutrient medium containing, g/L:  $\text{NaNO}_3$  – 5.0;  $\text{NaCl}$  – 7.0;  $\text{KCl}$  – 7.5;  $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$  – 1.8;  $\text{Ca}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O}$  – 0.15;  $\text{KBr}$  – 0.05;  $\text{KI}$  – 0.05;  $\text{K}_2\text{HPO}_4$  – 0.2;  $\text{ZnSO}_4 \cdot 5\text{H}_2\text{O}$  – 0.00002;  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$  – 0.00005;  $\text{MnSO}_4 \cdot 5\text{H}_2\text{O}$  – 0.0003;  $\text{H}_3\text{BO}_3$  – 0.0006;  $\text{MoO}_3$  – 0.00002;  $\text{NaVO}_3$  – 0,00005, the compound bis[1-phenyl-3-methyl-6-(pyridinium-4-yl)-4,5-diaza-hexa-1,3-diene-1,6-diolato(-2)- $O^1, N^4, O^6$ ]iron(III) nitrate – 0.01...0.011 and distilled water up to 1 L, having the pH 6.8...7.2, at the temperature of 23...25°C, the illumination of 2000...3000 lx/cm<sup>2</sup>, with periodic slow agitation.

The result consists in increasing the phenol content in the microalga biomass.

Claims: 2

Fig.: 1